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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,659	10/03/2001	John Hey	16954-00007	5241

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EXAMINER

FINEMAN, LEE A

ART UNIT PAPER NUMBER

2872

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/682,659

Applicant(s)

HEY, JOHN

Examiner

Lee Fineman

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

On page 4, section [0014], line 1, "FIG. 4" should be --FIGS. 4A and 4B--.

On page 4, section [0021], line 1, FIG. 11C is listed, but no FIG 11C exists. Therefore FIG. 11C should be removed from the description.

Appropriate correction is required.

Claim Objections

2. Claims ^{cancelled}35 and 41 are objected to because of the following informalities: "the viewer" and "the viewer's position" lack antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, 8-13, and 27-40 rejected under 35 U.S.C. 102(b) as being anticipated by Craig, U.S. Patent No. 4,740,836.

Regarding claims 1-2, 13, 27-28, 32-35, and 39-40, Craig discloses a system for stereoscopic viewing of an image (fig. 4) comprising a means (11, fig. 1) for displaying upon a generally flat surface a conventional stereoscopic pair of images (13 and 15, fig. 1), proximate

Art Unit: 2872

but separately from one another and in which the images are arranged one above the other; and an optical device (41), which is a prism, adapted to be placed in front of a viewer's eyes (fig. 4) comprising a means for re-angling the optical axis for at least one eye, so that each eye generally targets the center of a respective one of the pair of images (fig. 5 and column 7, line 35-column 8, line 14), employed to effect a stereoscopic meld of two 2-dimensional images (column 5, lines 49-55) and wherein the device is not affixed to a viewed target or target-holder (fig. 4) and is worn by the viewer or held by the viewer as though worn (column 6, lines 11-14).

Regarding claims 3-4, 11-12, 29-31, and 36-38, Craig further discloses a system in which the optical axis for exactly one eye is reangled (column 5, lines 21-36) and wherein the optical device comprises a pair of mirrors for each reangled eye (column 7, lines 31-34 and figs. 5b₁ and 5b₂) and at least one mirror is adjustable to accommodate variation in image positioning or viewing distance (column 8, lines 1-5).

Regarding claims 8-10, Craig further discloses a system wherein the images comprise the display for a video game, a televised display of still- or motion-picture images and a computer-graphics display of still or motion picture images (column 4, lines 37-39 and column 5, lines 1-2).

5. Claims 1, 3, 12-13, 27, and 29-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Aalto, U.S. Patent No. 5,886,817.

Aalto discloses a system for stereoscopic viewing of an image (figs. 1 and 2) comprising a means for displaying upon a generally flat surface a conventional stereoscopic pair of images (1 and 2), proximate but separately from one another; and an optical device (5 or 15a and 15b), which is a prism (5) or a pair of mirrors for each reangled eye (15a and 15b), adapted to be

Art Unit: 2872

placed in front of a viewer's eyes (3 and 4, 13 and 14) comprising a means for re-angling the optical axis for at least one eye, so that each eye generally targets the center of a respective one of the pair of images (figs. 1 and 2), employed to effect a stereoscopic meld of two 2-dimensional images (column 3, lines 1-10) and wherein the device is not affixed to a viewed target or target-holder and is worn by the viewer or held by the viewer as though worn (fig. 4) and in which the optical axis for exactly one eye is reangled (fig. 1, 4 or fig. 2, 14) and at least one mirror is adjustable to accommodate variation in image positioning or viewing distance (column 5, lines 6-8).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5-7, 14-26, and 41-43 rejected under 35 U.S.C. 103(a) as being unpatentable over Craig in view of Surati et al., U.S. Patent No. 6,456,339 B1.

Craig further discloses a system wherein the images are displayed upon a surface large enough to subtend an immersive portion of the viewer's visual field (column 8, lines 6-14). Craig discloses the claimed invention except in which at least one image is deliberately distorted prior to display to counteract distortion caused by the viewer's position, the viewing device, or the display surface and a means of distorting at least one of the images. Surati et al. teaches a system for viewing an image (fig. 13a) with a means (407) of distorting at least one of the

images, in which at least one image is deliberately distorted prior to display to counteract distortion (column 8, lines 54-57) caused by the viewer's position, the viewing device, or the display surface (column 1, lines 51-60, in so far as the same problems projecting the image on a screen are encountered by the viewer viewing the screen). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a means to deliberately distort at least one image prior to display as suggested by Surati et al. to the system of Craig to improve the performance of the display (column 9, lines 23-25).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Fineman whose telephone number is (703) 305-5414. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cassandra Spyrou can be reached on (703) 308-1687. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.



LAF

December 9, 2002


MARK A. ROBINSON
PRIMARY EXAMINER